

RECENT AMERICAN CONTRIBUTIONS TO THE TREATMENT OF
PENETRATING WOUNDS OF THE ABDOMEN.

1. *Morton.* Abdominal Section for Traumatism. By DR. THOMAS S. K. MORTON, of Philadelphia. *Journal of the American Medical Association*, January 4, 1890.

2. *Stimson.* On Gunshot Wounds of the Abdomen, With Special Reference to Wounds of the Intestines. By DR. LEWIS A. STIMSON, of New York. *New York Medical Journal*, October 26 and November 2, 1889.

1. The author tabulates and analyzes 234 cases in which laparotomy has been done for injuries of all classes; 110 for gunshot wounds, 79 for stab wounds, 27 for ruptured bladder, and 18 for ruptured or contused intestines. One hundred and thirty-eight of all the cases died, *i. e.*, 58.97%. Death succeeded operation from causes as follows: Shock and prolonged operation, 8; peritonitis from delayed operation, 36; peritonitis developing subsequent to operation, 16; peritonitis from overlooked wounds, 11; peritonitis following extravasation from poorly sutured wounds, 4; ditto from wounds which it was impossible to suture, 2; toxæmia from absorption of urine from the peritoneum because of delayed operation after bladder rupture, 7; opium poisoning, 2; chokæmia from obstructed hepatic duct, 2; gangrene of bowel, pericarditis, cerebral embolism, and delirium tremens, each 1; not stated, 16.

In four of the cases which died of other causes before peritonitis could develop, overlooked wounds were found post-mortem. Three cases died on the operating table, ten died immediately upon removal from the table, and forty within 12 hours.

In eighteen instances of penetrating wounds, no intraperitoneal injuries were found after the abdomen was opened. All of these recovered save two, one of which died of accidental opium poisoning, and the other, of causes not stated, in 36 hours.

The author recognizes as the one dominating indication for abdominal section after traumatism the fact of peritoneal penetration. Where portions of one or more viscera have become prolapsed through the wound no contraindication to section and search for other lesions is presented because it is never by any means certain that the prolapsed portions were the only ones liable to injury by proximity to the entrance wound, for they may not have become prolapsed until long after the original injury, and from an entirely different portion of the abdomen. As to the time for the operation it should ever be at the earliest possible moment after injury whenever the circumstances are in the least degree favorable, and often when most unfavorable. The median incision should always be adopted, and a systematic and thorough search for lesions should be made. Preliminary washing out of the stomach is commended. The resort to intestinal anastomosis rather than to excision, and the use of omental flaps to support repaired wounds, is favorably mentioned. After the repair of all injuries, thorough irrigation of the peritoneal cavity with hot water should be done. Where there have been signs of peritonitis, extravasation of *fæces* or of food, or where the operation has been undertaken late, drainage should invariably be used. In the after-treatment opium in any form should absolutely never be used except to relieve pain, and even then most tentatively. At the very first sign of oncoming peritonitis active saline or mercurial laxatives are imperatively indicated.

2. The author, in this paper, which was read before the Academy of Medicine of New York City, has re-examined the literature of the subject of laparotomy for perforating gunshot wounds of the abdomen with a view to discriminating between the different injuries and establishing some rule for guidance in the selection of those cases in which it is proper to operate, and of those in which it is wiser to abstain. He first contributes accounts of three new cases treated by laparotomy, one of which ended in recovery. He then traces the course of surgical opinion upon this subject during the current century. He calls attention to the untrustworthiness, in respect of the percentage of mortality of statistics made up from published cases, and in order to make a comparison between the results obtained